

Male combat in the striped kukri snake *Oligodon tenuatus*

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The striped kukri snake *Oligodon tenuatus* (Günther, 1861), is a relatively small (~450 mm), opisthoglyphous (rear-fanged) snake species which occurs in Thailand, Laos, Cambodia and southern Vietnam (Uetz, 2020), and one of several within the genus distributed throughout Asia. Although poorly documented in the literature, open-source observations of the species indicate similar natural history and habitat preferences to that of many other *Oligodon* species, whereby they have high tolerance for human disturbed habitats, roads, and agricultural areas, where they are typically found and recorded by citizen scientists (personal observation). There have only been two published records of intraspecific combat for an *Oligodon* sp. This was among Taiwanese kukri snakes (*Oligodon formosus*) where both males and females were defending their resources (sea turtle nests) (Huang et al., 2011 and male combat in *Oligodon fasciolatus* in Thailand (Ward, et al., 2021).

Here we describe an observation of the first recorded instance of combat between males in *Oligodon tenuatus*, where the individuals are tightly wrapped in an attempt to subdue the other by keeping its head and weight on top (Fig. 1). Combat behaviours in snakes differ from mating behaviours, which have been described by the inclusion of hemipene insertion as well as “chin rubbing, body jerks or caudocephalic waves, cephalocaudal waves, tail searching, pushing, nudging, biting, and tail raising” (Carpenter, 1977). The individuals in Figure 1 are assumed to be males due to the tail length, which have been shown to be longer in males than in females of other *Oligodon* species (Vassilieva, 2015) and the visibility of the ventral scales which exhibit no protruding of, or insertion of, hemipenes. The individuals were photographed at approximately 10:00 h in a village area of Sanam Chai Ket district, Chachoengsao, Thailand (approx. 13° 68'32.7" N, 101° 67'07.7" E), elevation ~83 m, April 2003, in the back yard of a domestic residence.

Male-male combat in colubrid snakes has been shown to be an indicator that males are typically larger than females in a population, given that the larger of the two participants is usually considered the victor and best-fit mate (Shine, 1978; Shine et al., 1981). Intrasexual combat rituals support an evolutionary hypothesis of divergent traits in major snake families (Senter et al., 2014), and further information strengthens these hypotheses. There are really very few natural history observations for the majority of south-east Asian snake species and only a single previous



Figure 1. Two male *Oligodon tenuatus* wrapped around each other in combat

record of intraspecific combat in an *Oligodon* species. This documentation contributes to filling gaps in the scarce knowledge of this data deficient species, and also to the growing body of data which supports the understanding and theory of evolution of courtship and combat in snakes

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